"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHEVA, Bogdana

How I utilize the educational film in my regular work in chemistry. Biol i khim 4 no.5:39-44 '61.

1. 21 sredno politekhnichesko uchilishte.

(Chemistry)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

KOLAROV, N.; BONCHEVA, Z.

Creep of crystals salts. Pt. 2. Godishnik khim tekh 8 no.2: 103-115 '61 [publ. '62].

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

KOLAROV, N.; BONCHEVA, Z.

Creeping of crystal salts. Pt. 3. Godishnik khim tekh 9 no. 1: 111-120 '62 [publ. '63].

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHINSKAYA, M.

POLAND/Chemical Composition. Cellulose and its Derivatives. H

Abs Jour: Ref. Zhur-Khimiya, No 12, 1958, 41819.

Author : Bonchinskaya, Mgy.
Inst : Inst. celul. - papiern.
Title : Fir Woodpulp as a Raw Material For Cellulose Production

Orig Pub: Przegl. papiern., 1956, 12, No 12, Biul. inst. celul.-papiern., 1-2.

Abstract: In connection with the development of the cellulose-paper industry in PNR, the fibrous materials that are used, are the annual plants and the fast growing woody varieties (Viemut pine, Douglas Fir, and others). A cellulose obtained in pulping of Fir according to sulfite and sulfate methods is less useful in its chemical composition and the quality of fibers than that of Spruce and in its properties it approaches Pine. When pulped

Card : 1/2 6

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

**BONCHKOVSKAYA, T.V. CAND PHYSICOCHEM SCI.

Dissertation: "Certain Characteristics of the Monsoon Activity of Atmosphere."

22 November 49
Central Inst of Weather Forecasting

SO Vecheryaya Moskva
Sum 71

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BUNCHKOVSKAYA, T. V.

231T63

USSR/Geophysics - Self-Excited Oscillations of Waves 11 May 52

"Self-Excited Oscillatory Motion Due to Swells on Sloping Banks," A. A. Dmitriyev, T. V. Bonchkovskaya, Marine Hydrophys Inst, Acad Sci USSR (Moscow)

"Dok Ak Nauk SSSR" Vol 84, No 2, pp 265-268

States that, at present, when great works are being carried out in the USSR on the construction of canals and reservoirs, special interest is shown in investigations of processes of destructive erosion, by wave currents, of natural banks. In this connection, article states, the Marine Hydrophys Inst conducted suitable expts, the results of which are described in this article. Submitted by Acad V. V. Shuleykin 19 Mar 52.

231T63

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKAYA, T. V.

260T90

USSR/Physics - Water Wave Motion 21 May 53

"Experimental Observation by Polarized Light Method of Wave Motion Near Vertical Solid Wall," A. A. Dmitriyev and T. V. Bonchkovskaya

DAN SSSR, Vol 90, No. 3, pp 347-349

A. A. Dmitriyev suggested use of polarized light to measure wave motion. Computes velocities of particles and plots computed and exptl curves, showing good agreement. Presented by Acad V.V. Shuleykin 30 Mar 53.

260T90

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

USSR/Physics - Hydrodynamics 1 Jul 53

"Problem of Turbulence in a Wave," A. A. Dmitriyev and T. V. Bonchkovskaya

DAN SSSR, Vol 91, No 1, pp 31-33

Solve the system of eqs set up by L. N. Sretenskiy (Trudy TsAGI [Works of the Central Aerohydrodynamical Institute], No 541, Part 1 (1941)), for the movement of a viscous liquid under the influence of wind currents and sea-bottom friction. State that turbulence of waves has received little study, according to the literature. Presented by Acad V. V. Shuleykin 20 Apr 53.

266T93

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKAYA, T.V.

124-11-12735

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr. 11, p. 60 (USSR)

AUTHOR: Dmitriyev, A. A., and Bonchkovskaya, T. V.

TITLE: Model Observations of the Motions Resulting from a Frontal Impingement of a Wave upon a Slope, and Some Considerations of the Circulations Occurring during an Oblique Approach of a Wave toward a Plane, Inclined Shore. (Nablyudeniya na modelyakh dvizheniy, voznikayushchikh pri frontal'nom udare volny ob otkos, i nekotoryye soobrazheniya o tsirkulyatsiyakh pri kosom podkhode volny k ploskomu naklonnomu beregu)

PERIODICAL: Tr. Mor. gidrofiz. in-ta, A N. SSSR, 1954, Nr 4, pp 31-71

ABSTRACT: Description of the results of experimental and theoretical investigations of the erosion of natural slopes by wavy currents. Particular attention is directed to a clarification of the structure of the wave motion, particularly during the breaking phase. Tests were carried out in a transparent wave basin 15.2 cm wide and 200 cm long. Waves were generated exhibiting heights of 2.5 cm, lengths of 30 cm, and a period of 0.4 sec. The observations, predominantly, were performed with a polarized-light instrument. Moving pictures were taken of the visual patterns formed in the water by a suspension of colloidal vana-

Card 1/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Model observations of the motions resulting from a frontal impingement of a wave upon a slope, and some considerations of the circulations occurring during an oblique approach of a wave toward a plane, inclined shore. (continued)

dium pentoxide. An evaluation of the pictures of successive phases of a single wave cycle (at 0.034-sec intervals) lead to the tracing of vector-field charts of the particle displacements during the impingement of the wave upon a 15-degree and a 30-degree slope. From a consideration of the structure of the motion of the particles during the breaking process of the wave on the slope, deductions are formulated concerning the erosion and the silting of various portions of the slope. It is established that the impulse acquired by the particles near the ground from the wave motion leads to the formation, along the shoals near the shoreline, of a groundswell which carries silting material toward the shore. At greater depth a similar circulation of opposite sign may be found. The presence of oscillatory motions, similar to those in a stalled fluid flow, is noted. The breaking of waves in relation to the steepness of the slopes encountered was studied, and also the transformation of the slope through the action of the waves. The location of the bands of erosion and the bands of silting depends on the steepness of the slope. With gentle slopes these zones are disposed farther from the waterline, while the erosion extends towards greater depths.

(B. Kh. Glukhovskiy)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

"Certain Characteristics of the Monsoon Activity of the Atmosphere"
Trudy Mor. gidrofiz. in-ta AN SSSR, 4, 1954, 102-142

For obtaining notions on the transfer of air masses the author compiles and analyzes isallobar maps reflecting variation in pressure over various time intervals. Proceeding from the assumption that the displacement of air occurred from a region of negative isallobar into a region of positive isallobars, the author draws on the maps lines perpendicular to the isallobars and giving a network of conditional channels, by means of which one can calculate the transfer of air massf from the ocean to the continent and in the reverse direction. Transfer of mass in the lower (monsoon, tradewind_ layer is compensated by transfer in the upper (anti-monsoon) layer, but not completely. The resulting transfer varying in the course of a year from 0 to 30 kg per meter of contour perpendicular to the flow also causes the redistribution of masses between oceans and continents. Survey of the maps of isallobars and maps of transfer from onth to month permitted the author to determine that in the northern hemisphere in January-July one observes the resulting transfer of air mass from continent to ocean with maximum in March-April. From July to April a transfer from sea to land is affected with maximum in September - October. Interchange of ~~it~~ direction occurs in July-August, beginning in the high latitudes and spreading to the lower latitudes. The monsoon activity is expressed less clearly in the southern hemisphere because of the absence of large continental masses. (RZhGeol, No 9, 1955)

SO: Sum-No 845, 7 Mar 56

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

FD 396

USSR/Geophysics - Wave particle motions

Card 1/1

Author : Dmitriyev, A. A., and Bonchkovskaya, T. V.

Title : Effect of currents on the wave motions of a fluid

Periodical : Izv. AN SSSR, Ser. geofiz. 4, 360-374, Jul/Aug 1954

Abstract : Solve theoretically the problem of the wave motions in a fluid that occur during the imposition of a driving current varying with altitude. Experimentally investigates the displacements of particles in a forced wave when acted upon by a wind current. Experiments are conducted in a transparent wave trough in two ways: a) light-polarized method and b) method of fixed behavior of the emulsion particles in the fluid. Finally solves a concrete theoretical problem with parameters taken from an experiment and for a schematized diagram of the drift velocities that is close to experience.

Institution : Marine Hydrophysics Institute, Acad Sci USSR

Submitted : November 3, 1953

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKAYA, T. V.

USSR/Geophysics - Sea wave reflection FD-1707

Card 1/1 : Pub. 45-7/12

Author : Dmitriyev, A. A.; Bonchkovskaya, T.V.; and Levchenko, S. P.

Title : Problem of the reflection of long waves from coastal inclines

Periodical : Izv. AN SSSR, Ser. geofiz., 60-68, Jan-Feb 1955

Abstract : The authors solve the problem of the passage of long waves over an under-water inclined bank possessing constant inclination and uniting the horizontal parts of the bottom of different depth. They calculate the coefficient of reflection and transmission of the waves. They described the experiments conducted. Two references; e.g. P. K. Bozhich and N. N. Dzhunkovskiy, Morskiye voleniye i yego deystvie na sooruzheniya i berega [Swells and their action on installations and shore], Machine Construction Press, Moscow 1949.

Institution : Marine Hydrophysics Institute, Academy of Sciences USSR

Submitted March 18, 1954

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

124-57-2-1944

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 66 (USSR)

AUTHORS: Dmitriyev, A.A., Bonchkovskaya, T.V.

TITLE: An Application of the Polarized Light Method to the Investigation of the Motion in Agitated Liquids (Primeneniye svetopolyarizatsionnogo metoda k issledovaniyu dvizheniya v volnuyushcheysya zhidkosti)

PERIODICAL: Tr. Mor. gidrofiz. in-ta AN SSSR, 1955, Vol 5, pp 15-23

ABSTRACT: Experimental data are adduced on the characteristics of the wave motion of a heavy liquid in a small plane-parallel vessel, obtained through the use of a polarized-light instrument consisting of a light source (mercury-argon lamp), two lenses, and two polarizing filters. The vessel is placed between the polarizing filters and is filled with an optically active fluid, capable of wave formation (a colloidal solution of vanadium pentoxide) with a viscosity close to that of water. The wave front is parallel to the axis of the light beam emitted from the polarizer. The experiments show that the wave motion is close to a potential motion. Some turbulence exists at the apex of the wave, but it decreases toward the side and the trough. The data on the characteristic of the wave

Card 1/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

An Application of the Polarized Light Method (cont.)

motion near the wall are discussed, and theoretical concepts on the extinction of the vortices in the wave motion with increasing depth beneath the free surface are offered. The latter are well known in their application to free waves (ref. Lamb, H.I., Hydrodynamics, 1947, p 790).

M.D.Khaskind

1. Water waves--Simulation 2. Water waves--Testing equipment 3. Water waves --Test results

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKAYA, T.V.

124-58-6-6700

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 6, p 56 (USSR)

AUTHORS: Dmitriyev, A. A., Bonchkovskaya, T. V., Teplov, A. V.

TITLE: On the Extinction of Waves by a Pneumatic Breakwater (O gashenii volny pnevmaticheskim volnolomom)

PERIODICAL: Tr. Mor. gidrofiz. in-ta AN SSSR, 1955, Vol 5, pp 24-38

ABSTRACT: The three basic causes of the extinction of waves are given: 1) Extinction of a wave by superimposing upon it a velocity field generated by the movement of air bubbles. 2) Reflection of a wave from an air-bubble screen. 3) Energy dissipation due to the compression and expansion of the rising air bubbles. The extinction effect investigated in the main is the one due to circulatory currents and turbulence. A description of experiments performed on a pneumatic breakwater model installed on the bottom of a transparent wave basin is given. The test basin is 4 m long, 15 cm wide, and 24.5 cm deep. Both cinematography and photography were employed. For determining the circulation within the liquid the polaroid light method was used. The currents created by the air injected into the liquid at different air pressures were observed, as well as the effect

Card 1/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

124-58-6-6700

On the Extinction of Waves by a Pneumatic Breakwater (cont.)

of these currents on the waves approaching the breakwater. In the theoretical part of the paper it is pointed out that the work expended in compressing the air injected into the liquid is neglibible and may be disregarded. The role played by the current and the turbulence in wave damping is evaluated. By means of an example it is demonstrated that the effects of the currents and of the turbulence are of the same order of magnitude. At smaller discharge rates of air the effectiveness of turbulence increases and that of the counter-currents diminishes. The results of the work by Yu Yi-Yuan (Yi-Yuan Yu, Trans. Amer. Geophys. Union, 1952, Vol 33, Nr 1, pp 39-41) treating the same topic are discussed.

S. S. Voyt

1. Breakwaters--Design 2. Breakwaters--Performance
3. Water waves--Control 4. Pneumatic systems--Performance

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

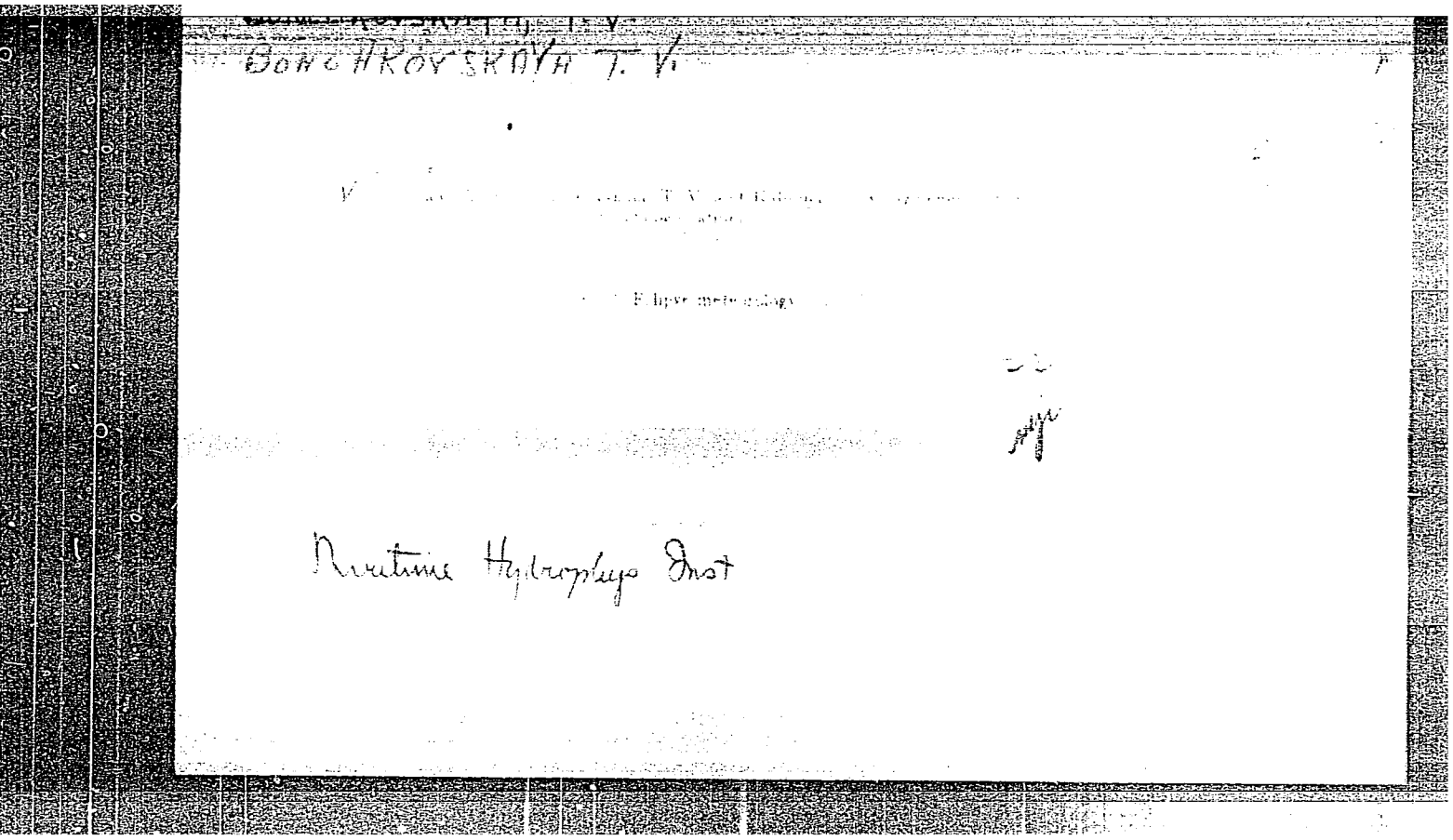
"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKAYA, T.V.

[illegible]rdynamic regime over solid wave models. Trudy MGI 6:98-106 '55.
([illegible]erodynamics) (Waves) (MLRA 9:6)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6



APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

SOV/124-57-4-4319

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 67 (USSR)

AUTHORS: Dmitriyev, A. A., Bonchkovskaya, T. V.

TITLE: A Laboratory Device for the Investigation of Wave Motion in a Liquid (Laboratornaya ustanovka dlya issledovaniya volnovykh dvizheniy zhidkosti)

PERIODICAL: Tr. Mor. gidrofiz. in-ta AN SSSR, 1956, Vol 7, pp 67-71

ABSTRACT: A description of a laboratory device developed at the Naval Hydrophysical Institute of the AN SSSR for purposes of studying wave motion by the polarized-light method. The wave trough is made of Plexiglas and is 400 cm long, 15 cm wide, and 35 cm high. Depending on the magnitude of waves produced by the wave generator, dissipating units of various design are provided for the purpose of dissipating the waves. The authors developed an excitation unit for the agitator which ensures that the period of the waves generated remains stable during the line-voltage fluctuations.

A. A. Kostyukov

Card 1/1

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

DMITRIYEV, A.A., BONCHKOVSKAYA, T.V.

Characteristics of wave motions in a channel having an underwater baffle. Trudy MGI 7:72-92 '56. (MLRA 9:9)
(Waves) (Fluid mechanics)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

SOV/124-57-5-5781

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 5, p 106 (USSR)

AUTHORS: Dmitriyev, A. A., Bonchkovskaya, T. V., Kalinina, T. A.

TITLE: To the Question of the Change in Meteorological Elements During a Solar Eclipse (K voprosu ob izmenenii meteorologicheskikh elementov vo vremya solnechnogo zatmeniya)

PERIODICAL: Tr. Mor. gidrofiz. in-ta AN SSSR, 1956, Vol 7, pp 93-119

ABSTRACT: Bibliographic entry

Card 1/1

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

DMITRIYEV, A.A.; BONCHKOVSKAYA, T.V.

Reflection of weak two-dimensional waves from submarine slopes and an immersed wall. Trudy Okean. kom. 2:116-125 '57. (MLRA 10:9)

1. Morskoy gidrofizicheskiy institut Akademii nauk SSSR.
(Reflection) (Waves)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY

PHASE I BOOK EXPLOITATION SOV/5542

Akademiya nauk SSSR. Morskoy gidrofizicheskiy institut

Gidrometeorologiya, Gidrokhimiya (Hydrometeorology, Hydrochemistry) Moscow, 1959. 173 p. (Series: Its: Trudy, tom 16) Errata slip inserted. 1,200 copies printed.

Resp. Ed.: A.A. Ivanov; Ed. of Publishing House: L.K. Nikolayeva; Tech. Ed.: I.N. Dorokhina.

PURPOSE: This publication is intended for meteorologists, hydrologists, and chemists interested in the chemical composition of sea water.

COVERAGE: This volume of the Transactions of the Marine Hydrophysical Institute AS USSR contains articles on problems in hydrometeorology and hydrochemistry. Individual articles deal with the heat balance of the Arctic atmosphere, an experimental study of the types of atmospheric circulation, and the occurrence in sea water of such substances as sulphur, organic phosphorus, and arsenic. No personalities are mentioned. References follow individual articles.

Card 1/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Hydrometeorology, Hydrochemistry SOV/5542

TABLE OF CONTENTS:

Card 2/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

AVAILABLE: Library of Congress

Card 3/3

JA/dwm/gmp
9-11-61

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKAYA, T.V.

Principal results of model studies on atmospheric circulation by using rotating vessels filled with a liquid. Trudy MGI 16:44-73 '59. (MIRA 13:5)
(Fluid dynamics)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

GUSEV, A.M., doktor fiz.-matem.nauk, otv.red.; KAZAKOV, S.P., kand. tekhn.nauk, red.; BONCHKOVSKAYA, T.V., kand.fiz.-matem.nauk, red.; KALININA, N.K., red.; FEL'ZENBAUM, A.I., red.izd-va; POLENOVA, T.P., tekhn.red.

[Modeling of atmospheric and hydrospheric phenomena] Modelirovanie iavlenii v atmosfere i gidrosfere; trudy. Moskva, Izd-vo Akad.nauk SSSR, 1962. 183 p. (MIRA 16:1)

1. Mezhvedomstvennaya konferentsiya. 1st, 1960. 2. Institut prikladnoy geofiziki AN SSSR (for Gusev, Bonchkovskaya).
(Meteorological research) (Hydrology--Research)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

S/863/62/000/000/001/008
D207/D308

AUTHOR: Bonchkovskaya, T.V.

TITLE: Short review of the work on modeling of atmospheric processes in rotating liquid-filled containers

SOURCE: Modelirovaniye yavleniy v atmosfere i gidrosfere; trudy Pervoy mezhduvedomstvennoy konferentsii 22-26 noyabrya 1960 g. Moscow, Izd-vo AN SSSR, 1962, 7-19

TEXT: The article reviews Western and Soviet literature for the period 1949-1960. The review is limited to the work in which similarity criterions were applied.. The following modeling methods are dealt with: a liquid layer between two spherical containers of different diameters; a layer of liquid or air in a cylindrical container, a layer of liquid between two coaxial cylinders of different diameters. The heat sources and sinks are represented by heating various parts of the container base or walls. There are 7 figures and 72 references.

Card 1/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Short review of the work ... S/863/62/000/000/001/008
D207/D308

ASSOCIATION: Institut prikladnoy geofiziki, AN SSSR (Institute of Applied Geophysics, AS USSR)

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

S/863/62/000/000/002/008
D207/D308

AUTHORS: Dmitriyev, A.A., Bonchkovskaya, T.V. and Byzova, N.L.

TITLE: Estimates of the parameters for modeling of atmospheric circulation in rotating liquid-filled containers

SOURCE: Modelirovaniye yavleniy v atmosfere i gidrosfere; trudy Pervoy mezhduvedomstvennoy konferentsii 22-26 noyabrya 1960 g. Moscow, Izd-vo AN SSSR, 1962, 20-31

TEXT: The purpose of this paper is: 1) to select the parameters (dimensions and geometrical forms of containers, temperature drop) for modeling of large-scale circulation in the atmosphere so that they satisfy the requirements of similarity; 2) to estimate the effective viscosity coefficient in such models; 3) to find whether it is possible to establish vertical temperature (or density) stratification in a model, similar to the typical stratification in the atmosphere; 4) to formulate some problems which can be attacked by modeling methods. The following conclusions and results are re-

Card 1/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

ported: 1) It is recommended that the container should be a body of revolution: a sphere, a paraboloid or a cylinder with a flat base. The suggested dimensions of containers are given in mathematical relationships. By heating one part of the container base and cooling another, horizontal temperature gradients of 1.0 deg/cm can be obtained. A water-filled container (up to 75 cm in dimensions) should rotate at about 0.1 rev/sec in order to simulate atmospheric circulation. 2) The effective viscosity in water-filled rotating cylinders is 0.1 cm^2/sec. 3) Vertical temperature stratification can be obtained by using two heaters: one above the container and the other below it. 4) Modeling can be used for studying radioactive fallout, possible control of the weather, effects of cities, large factories or water reservoirs on the weather etc. There are 4 figures.

ASSOCIATION: Institut prikladnoy geofiziki, AN SSSR (Institute of Applied Geophysics, AS USSR)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

L 44328-66 EWT(1) GD/GW

ACC NR: AT6028290 SOURCE CODE: UR/0000/64/000/000/0086/0090

51
B+1

AUTHOR: Bonchkovskaya, T. V.; Nikitin, V. G.

ORG: none

TITLE: Scales of eddy motions in the atmosphere during turbulent heat exchange

SOURCE: AN SSSR. Institut prikladnoy geofiziki. Issledovaniya teploobmena v atmosfere (Investigations of heat exchange in the atmosphere). Moscow, Izd-vo Nauka, 1964, 86-90

TOPIC TAGS: micrometeorology, ~~radiation balance~~, atmospheric convection, atmospheric turbulence, surface boundary layer, ~~particle motion, wind speed~~, wind ~~gradient~~ velocity, theodolite, meteorologic observation, atmospheric thermodynamics

ABSTRACT: Starting with a simplified representation of air-particle velocity as a sum of the velocity of horizontal transfer and the velocity of circular motion c, the authors derive the expression $u = -c \sin \alpha + u$ (where α and c are the phase and velocity of circular motion) for the components of velocity along the wind gradient u_g. The values of c and u_g can be determined by measuring the extremal values of the velocity u. If the distance d between the two maximum velocities is also known, the distance r of a particle from the center of revolution will equal $d\sigma/r\pi u_g$. The authors assume that the statistical mean value of r equals half the radius of the eddy R. This reasoning is used to estimate the dimensions of eddies in the atmosphere at a height of 300–400 m by observations of the motion of pilot balloons

Card 1/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

L 44926-66

ACC NR: AT6028290

in a state of equilibrium. The positions of the pilot balloons were determined every 10 seconds by theodolites and phototheodolites. Observations were conducted over the Kuban Steppe in June and July 1960 on days when there was convection and the ground-level wind velocities did not exceed 5—6 m/sec. The mean value of R was found to be 10 m. The scales of disturbances in the atmosphere were also estimated by observations of the periods of oscillations and changes in the altitude of captive balloons with a known lifting force. In this case, a value of R of 10—15 m was obtained for short-period oscillations and 100—200 m for long-period oscillations. [EO]

SUB CODE: 04 / SUBM DATE: 24Jun64/ ORIG REF: 001/

Card 2/2 blg

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

ACC NR: AT6028288 SOURCE CODE: UR/0000/64/000/000/0066/0075

AUTHOR: Bonchkovskaya, T. V.; Klimova, Ye. I.; Mishina, M. I.; Nikitin, V. G. 61 B1

ORG: none

TITLE: The problem of heat transfer in the lower layer of the atmosphere

SOURCE: AN SSSR. Institut prikladnoy geofiziki. Issledovaniya teploobmena v atmosfere (Investigations of heat exchange in the atmosphere). Moscow, Izd-vo Nauka, 1964, 66-75

TOPIC TAGS: micrometeorology, surface boundary layer, atmospheric turbulence, ~~radiation balance~~, ~~vapor rate~~, wind ~~speed~~ velocity, meteorologic observation, atmospheric convection, radiative heat transfer, atmospheric radiation, atmospheric thermodynamics

ABSTRACT: The results of an analysis of meteorological observations made to investigate convective heat exchange in the surface boundary layer of the atmosphere are presented. The observations were conducted in the summer of 1960 in a level field covered with uniform vegetation in the Kuban' Steppe area. Temperatures and wind speeds were measured at three levels in the bottom six-meter layer of the atmosphere, as were the soil temperatures at several depths and the characteristics of radiation heat exchange. The information obtained was used to calculate the magnitude of the heat flux in the soil (by the Main Geophysical Observatory method) and the vertical turbulent heat flux in the atmosphere (by the Kazanskiy and Monin method). A series of graphs was constructed which illustrate the presence of correlative relationships

Card 1/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

between individual characteristics of meteorological conditions in the surface boundary layer of the atmosphere. Such quantities as wind speed, wind-speed gradient, lapse rate, radiation balance, heat flux in the soil, turbulent heat flux, the Richardson number, etc., are compared. The conclusions are of a descriptive nature. [EG]

SUB CODE: 04 / SUBM DATE: 24Jun64/ ORIG REF: 004

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

ACCESSION NR: AR4034739 S/0124/64/000/003/B120/B121

SOURCE: Ref. zh. Mekhan., Abs. 3B727

AUTHOR: Bonchkovskaya, T. V.

TITLE: On the possibility of modeling atmospheric convective systems of various sizes

CITED SOURCE: Tr. Vses. nauchn. meteorol. soveshchaniya. T. 2. L., Gidrometeoizdat, 1963, 153-161

TOPIC TAGS: hydromechanics, meteorology, dynamic meteorology, air convection current, eddy formation

TRANSLATION: Generally, modeling is done in rotating and non-rotating vessels with liquids under one or another kind of conditions on the lower or upper boundary. The object of the experimental study of the author on models of this type were the convective systems of various sizes. The author figures that convection itself is one of the most important processes determining the thermic and dynamic state of the atmosphere.

Card 1/4

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

ACCESSION NR: AR4034739

The author reviews the possibility of modeling convective systems of three types: a) convection created by a homogenously heated base surface; b) convective circulation of a local nature of the breeze type, created by the presence of a warm zone on the earth's surface in a colder space surrounding it, and c) convective circulation of a large scope in the field of Coriolis /Koriolis/ forces caused by the activity of warm climatic centers.

The first type of convection basically is determined by the Grasshoff number $G = \alpha\beta gh^4/\nu^2$ and the Prandtel number $P = \nu/x$, where ν/x is the coefficient of viscosity and heat conductivity; h is the height of the convecting layer, characterized by some average vertical temperature gradient β; α is the coefficient of volumetric expansion.

In the second type of convection, it is necessary above all to create in the bottom of the model, a distribution of sources and outlets of heat, which is geometrically similar to the distribution of hot and cold zones on the surface of the earth.

For the analysis of dimensions, the following determinant similarity parameters are obtained: The Froude number F as the ratio of inertia forces and weight forces, the Euler number $E = \Delta p/\rho u^2$ and the Reynolds parameter R. In addition, for

Card 2/4

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

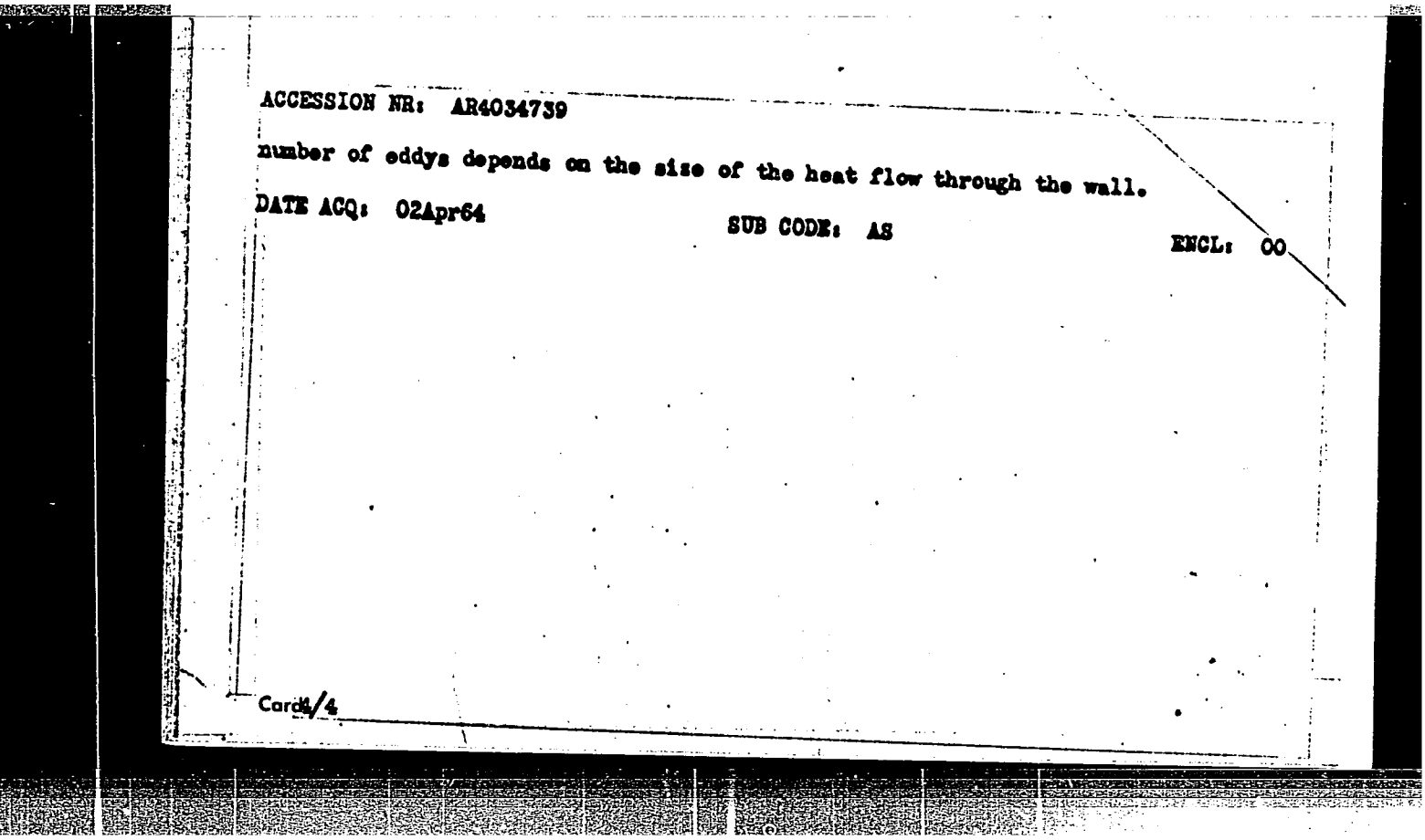
similarity, uh/wl should equal idem. In this case, Δp are the characteristic pressure drop in the center of the convective system and outside of it, ρ is the characteristic density, u, l is the horizontal velocity and scope, and w, h are the vertical velocity and scope.

We note that the results of the experiments show that in long-lasting systems of local nature, analogical according to the parameters of similarity to breeze parameters, it is possible to actuate self-oscillation, the period of which depends on the scope and intensity of heating of individual zones of the earth's surface.

Finally, the author notes that the modeling of convective systems of large scope is much more complex. In this case, it is necessary to note another force, the Coriolis force, and to evaluate the operational routine of horizontal exchange the Rossby parameter $Ro = \alpha g H \gamma / w^2 r$ has to be added as a determant parameter. In this case, $F = w^2 r/g$, and $R = \omega h^2/2\nu_0$, where H is the height of the layer encompassed by convection, γ is the horizontal gradient of the temperature, w is the angular speed of rotation of the system, h is the height of the boundary layer, r is the radius, and ν_0 is the coefficient of horizontal movement. In this case, the experiments show that in the process of horizontal movement, inertia forces plan a significant role, and in actually are the source of eddy formation of a large scope. The

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6



ACCESSION NR: AR4034739

number of eddys depends on the size of the heat flow through the wall.

DATE ACQ: 02Apr64 SUB CODE: AS ENCL: 00

Card 4/4

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BEN'KOVA, N.R.; BONCHKOVSKAYA, Yu.S.; SHASHUN'KINA, V.M.

Ionospheric disturbances of July 10-18, 1959 according to observations at ionospheric stations of the U.S.S.R. Geomag. i aer. 1 no.3:369-373 My-Je '61. (MIRA 14:9)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

(Ionosphere)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

S/904/61/000/000/007/011
D218/D308

AUTHORS: Bonchkovskaya, Yu. S., and Vasil'yev, G. V.

TITLE: Apparatus for the determination of absorption by the A2 method

SOURCE: Doklady Nauchnogo simpoziuma po ionosfere, Rostov-na-Donu, 21-22 aprelya 1960 g. V razdel programmy MGG (ionosfera). Rostov on the Don, Izd-vo Rostov. univ., 1961, 80-88

TEXT: The apparatus for the A2 method (recording of mean field strength due to extra-terrestrial radio sources) is described. The apparatus was developed at the Ionospheric Division of ИЗМИР (IZMIR) AS USSR. The specifications of the apparatus are quoted as follows: (1) The five-element Yagi antenna is tuned to a mean frequency of 30 Mc/sec, and the beamwidth at half-power points is 30°. (2) The axis of the antenna points toward the Pole Star. (3) The effective height of the antenna

Card 1/4

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Apparatus for the...

above ground level is about 3 m. (4) There is a superheterodyne receiver with two HF and three IF amplification stations; the detector is linear, the working frequency is 28.5 Mc/sec, and the intermediate frequency is 455 kc/sec. (5) The receiver noise factor is about 3.5, and its half-power bandwidth is 7 kc/sec. (6) The power amplification coefficient of the receiver is about 3×10^{12}. The block diagram of the apparatus is given in Fig. 1. The apparatus has been used for short-range forecasting at the above institute. There are 3 figures and 1 table.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere, and Radiowave Propagation, AS USSR)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Apparatus for the...

S/904/61/000/000/007/011
D218/D308

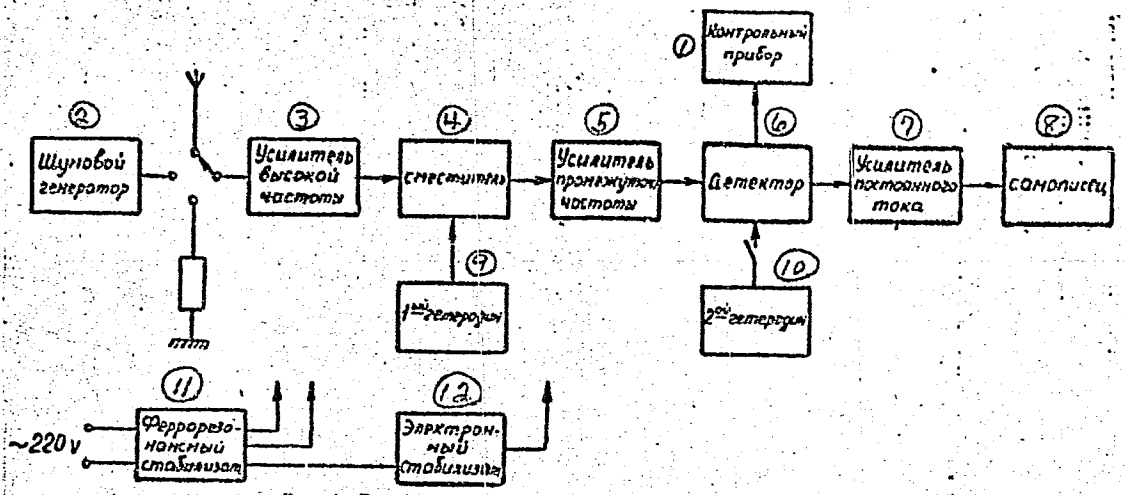


Рис. 1. Блок-схема устройства для измерения поглощения.

Fig. 1

Card 3/4

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Fig. 1. Legend: (1) control instrument, (2) noise generator, (3) HF amp, (4) mixed, (5) IF amp, (6) detector, (7) DC amp, (8) pen recorder, (9) 1st hetrodyne, (10) 2nd hetrodyne, (11) ferro resonance stabilizer, (12) electronic stabilizer.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

NIKOLAYEV, Alekseĭ Vasil'yevich; BONCHKOVSKIY, F.N., otv.red.; VINOGRADSKAYA, S.N., red.izd-va; FROLOV, P.M., tekh.red.

[Theory of irrigation cycles for farm crops] K teorii polivnykh rezhimov sel'skokhoziaistvennykh kul'tur. Stalinabad. Izd-vo AN Tadzh.SSR. 1956. 266 p. (Akademiia nauk Tadzhikskoi SSR, Stalinabad. Trudy, vol.48) (MIRA 12:6)
(Irrigation farming)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, F.N.; ILOVAYSKAYA, N.N.

Results of research of the Institute of Soil Science, Land Improvement and Irrigation. Izv. Otd. est. nauk AN Tadzh. SSR no.23:131-133 '57. (MIRA 11:8)
(Tajikistan--Agriculture)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BLAGOVESHCHENSKIY, Eliy Nikolayevich; ANTIPOV-KARATAYEV, I.N., otv. red.; BONCHKOVSKIY, F.N., otv. red.; KOTSABENKO, Ye.G., red.izd-va; FROLOV, P.M., tekhn.red.

[Soil water balance in deserts of Central Asia] Vodnyi rezhim pochvogruntov v pustyniakh Srednei Azii. Stalinabad, Izd-vo Akad.nauk Tadzh.SSR, 1958. 131 p. (Akademiia nauk Tadzhikskoi SSR. Stalinabad, Trudy, vol.88) (MIRA 12:12)
(Soviet Central Asia--Soil moisture)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BYSTROV, Sergey Vasil'yevich; ANTIPOV-KARATAYEV, I.N., otv.red.; BONCHKOVSKIY, F.N., otv.red.; BATALOVA, M.A., red.izd-va; FROLOV, P.M., tekhn.red.

[Sagging of loess-type soils in the Vakhsh Valley] Prosadochnye lessovidnye grunty (lessy) Vakhshskoi doliny. Stalinabad, Izd-vo Akad.nauk SSR, 1958. 139 p. (Akademiia nauk Tadzhikskoi SSR. Stalinabad. Trudy, vol. 96). (MIRA 12:12)
(Vakhsh Valley--Loess)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

ANTIPOV-KARATAYEV, I.N.; OVCHINNIKOV, P.N.; BELYAKOVA, L.P.; BONCHKOVSKIY, F.N.; ILOVAYSKAYA, N.N.; KERZUM, P.A.; LIPKIND, I.M.

Ol'ga Aleksandrovna Grabovskaia; obituary. Izv.Otd.est.nauk AN Tadzh.SSR no.2:145-149 '59. (MIRA 13:4)
(Grabovskaia, Ol'ga Aleksandrovna, 1908-1958)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

ZETEL', Semen Isaakovich; BONCHKOVSKIY, R.N., red.[deceased]; UMANSKIY, G.S., red.; SMIRNOVA, M.I., tekhn. red.

[A new geometry of the triangle; textbook for teachers] Novaia geometriia treugol'nika; posobie dlia uchitelei. Izd.2. Moskva, Uchpedgiz, 1962. 150 p. (MIRA 15:6)

(Geometry, Modern)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Bonchkovsky, R. W. "Graphical Determination of Ore-Deposits from the Data of Seismic Prospecting." Biulleten Gosud. Geofizicheskogo Instituta R.S.F.S.R., No. 36, 1931, pp. 66-68.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V. F.

BONCHKOVSKIY, V. F.

Meteli i pozemki. Moskva, 1925. 79 p., illus., tables, diagrs. (TSAGI. Trudy, no. 11)
Summary in English.
Title tr.: Snowstorms and ground snowstorms.

QA911.M65 no. 11

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Bonchkovsky, V. F. "Contribution to the Method of Applying Elastic Waves in Prospecting for Ore Deposits." Biulleten Gosud. Geofizicheskogo Instituta R.S.F.S.R., No. 36, 1931, p.. 44-65.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Ponchkovsky, V. F. "Contribution to the Theory of the Seismograph; Instruction for Seismic Observations." Biulleten Gosud. Geofizicheskogo Instituta R.S.F.S.R., No. 41, 1932, pp. 9-28.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Bonchkovsky, V. F., and Bonchkovsky, Iu. V."Investigations Concerning the Use of the Seismic Method for Determining the Depth of the Upper Horizon of Frozen Ground." Trudy Komissii po Izucheniiu Vechnoi Merzloty, Akad. Nauk S.S.S.R., Moscow-Leningrad, vol. 5, 1937, pp. 131-163.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Bonchkovskii, V. F. "Geophysical Methods in the Solution of Hydrometeorological Problems." Trudy Moskovskogo Gidrometeoro-logicheskogo Instituta, Moscow, No. 1, 1939, pp. 215-220.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

"The Inclination of the Earth's Surfaces," Trudy Seysmolosich Institute of the USSR AS No 99, 1940.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

'Beno Gutenberg and C. F. Prichar, "Seismicity of the Earth", GEological Society of America, Special papers, No 34,' Iz. Ak. Nauk SSSR, Ser. Geograf. i Geofiz., No 5-6, 1945.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

"Microseisms and Their Causes," Trudy Seysmologich Instituta of the USSR AS No 120, 1946.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONDHKOVSKIY, V. F.

"Divisoin of the Territory of the USSR into Seismic Provinces and the Tasks of the Antiseismic Construction," Jubilee Collection, Dedicated to the 30th Anniversary of the Great October Socialist Revolution, USSRAS 1947, Part 1.

SO: U-1659, 24 Jan 52.

An account of the progress made in registring the violence of earthquakes in the USSR over approximately the last 50 years and in dividing the country into different zones according to the intesity of vibration. A map is given of the seismic division of the USSR.

This problem is of great importance in planning buildings for the areas which are subject to earthquakes. The measures taken for regulating construction methods and developin structures which will withstand the necessary intensity of vibrations are discussed.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V. F., Prof.

"A New Method for the Determination of the Thickness of the Earth's Crust," Vestnik Akademii Nauk SSSR, No 6, 1948.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

USSR/Geophysics May 1948
Deformation

"Deformation of the Earth's Surface Under the Influence of External Forces," V.F. Bonchkovskiy, Geophys Inst, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR, Nov Ser" Vol LX, No 6

Obtained values for deformation show that there is constant inclined movement of the earth's surface, which nevertheless does not upset its normal distribution. Interesting to note that the degree of incline depends on the nature of mineral rock located in the surface layers of the earth's crust. Submitted by Academician O.Yu. Shmidt 31 Mar 1948.

67T55

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V. F., Prof., Dr. of Physico-Mathematical Sciences, Order of Labor Red Banner, 1945.

At a special conference called by Geophysics Institute in 1949 reported on results of the Garm Expedition and prosepects for further study in that region.

Also "The Connection Between Tilts of the Earth's Surface and Earthquakes," at same conference. (Seismological Div., Geophysics Insitute, Dept. pf Physico-Mathematicl Sciences, Acad. of Sci.)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKII, V. F.

"The Method of Measuring Tilts of the Earth's Surface," pp 49-61, Symposium of Articles and Lectures (which is No. 5 (132) in the series entitled "Works of the Geophysical Inst.," AS USSR Press, Moscow and Leningrad, 1949.

U-1442, 28 Aug 51

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V. F.

"Abstracts of Ten Articles on Seismology and Gravimetry (1949)," Sbernik Statey i Noklady (Collection of Articles and Reports). No. 5 (132) in the series entitled: Trudy Geofisicheskogo Instituta (Works of the Geophysical Inst.).

U-1442, 28 Aug 51

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V. F.

Bonchkovskiy, V. F. and Alova, G. - "Subterranean Forces" (On earthquakes)," Vokrug sveta, 1949, No. 1, p. 29-32

SO: U-3600, 10 July 53, (Letopis 'Zhurnal 'nykh Statey, No.6, 1949).

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, B. F.

Sovetskaya nauka o stroyenii zemli. [Soviet Science Concerning the Earth's Structure] Nauks i zhizn'. No 8. Vsesoyuznoye obshcestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy. Moskva, 1950. (Pages Translated: 23-30)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Bonchkovskiy, V [illegible]

Vnutrennoye stroyeniye zemli (Inner structure of the earth) Moskva, "Pravda", 1951.
31 p.
Cataloged from abstract
Lecture deals with various theories of structure and hypotheses on the origin of the earth.

I
621.31
.B6

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.

[Internal structure of the earth] Vnutrennee stroenie zemli. Moskva, Izd-vo Akademii nauk SSSR, 1953. 173 p. (MLRA 7:2)
(Earth--Internal structure)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.

Defense of the hypothesis on flow below the earth's crust. Vest. Mosk.un. 9 no.6:3-16 Je '54. (MLRA 7:8)

1. Kafedra fiziki zemnoy kory.
(Magma) (Geophysics) (Heat--Convection)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.; NAMSARAY, S.

Accuracy of clinometric data. Trudy geofiz. inst. no.22:3-18 '54.
(Clinometer) (MIRA 8:4)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

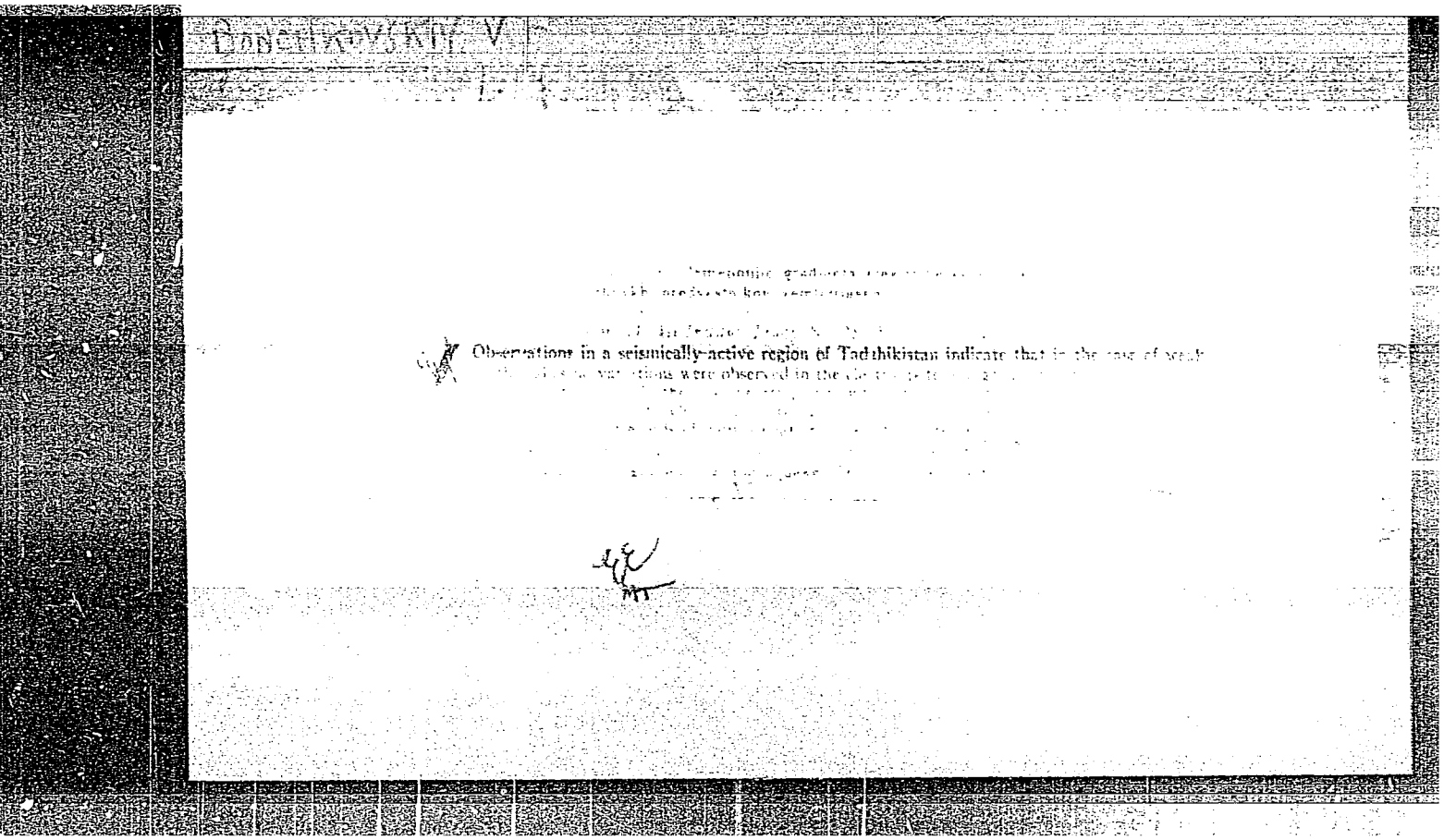
"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.

Inclines of the earth's surface as one of the possible percursors of earthquakes. Trudy Geof.inst. no.25:134-153 '54. (MLRA 7:12)
(Earthquakes) (Geology, Structural)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6



Observations in a seismically-active region of Tadzhikistan indicate that in the case of weak

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, Vyacheslav Frantsevich; USPENSKAYA, N.V., redaktor; ISLENT'YEVA, P.G., tekhnicheskiy redaktor.

[Internal structure of the earth] Vnutrennee stroenie zemli. Moskva, Izd-vo "Znanie," 1955. 30 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii Ser. 3. no.43) (MLRA 8:12)
(Earth--Internal structure)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

GORSHKOV, G.P.; BONCHKOVSKIY, V.F., redaktor; BUBLEYNIKOV, F.D., redaktor; MAKUNI, Ye.V., tekhnicheskiy redaktor;

[Aleksandr Petrovich Orlov; from the history of Russian seismology) Aleksandr Petrovich Orlov; iz istorii russkoi seismologii. Moskva, Izd-vo Akademii nauk SSSR, 1955. 60 p. (MLRA 8:11)
(Orlov, Aleksandr Petrovich, 1840-1889)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.

Data on the work of the Garm expedition. Biul.Sov.po seism. no.1:31-39 '55. (MIRA 9:9)

1.Geofizicheskiy institut AN SSSR.
(Garm Province--Geophysics)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.

USSR/Geophysics - Seismology

FD-1790

Card 1/1 Pub 45-12/18

Author : Bonchkovskiy, V. F., and Latynina, L. A.

Title : Torsional deformation gauge (deformograph)

Periodical : Izv. AN SSSR, Ser. geofiz. 275-277, May-Jun 1955

Abstract : The authors describe the principle governing the action of the torsional deformation gauge, developed in 1952 before the Garm expedition of the Geophysical Institute, for measuring and recording slow deformations by means of the transfer of linear displacements of a rod resting on a very thin turning cylinder. The advantages are: sensitivity is up to 0.1-0.01 micron per millimeter of deflection on the recording tape; absence of turning forces which permits prolonged observations on natural deformations. No references.

Institution: Geophysical Institute, Academy of Sciences

Submitted : August 20, 1954

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.; BUBLEYNIKOV, F.D.; ZISMAN, G.A., redaktor; NEGRIMOVSKAYA, R.A., tekhnicheskiy redaktor

[The earth, its figure and physical characteristics; present-day ideas regarding its historical development] Zemlia, ee figura i fizicheskie svoistva; sovremennye vzgliady v istoricheskom razvitii. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 252 p. (MLRA 10:1)
(Earth)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F., Prof.

"Certain peculiarities of periodic inclines of the earth's surface", a paper given at the 50th Anniversary Session of the Seismic Station "Pulkovo", 25-29 Sep 1956, Leningrad.

SUM. 1322

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.

Characteristics of periodic changes in the dip of the Earth's surface. Biul. Sov. po seism. no.6:135-138 '57. (MIRA 11:3)

1. Institut fiziki Zemli Akademii nauk, SSSR, Moskva.
(Earth--Surface)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F., KARMALEYEVA, R.M.

First data on the performance of the azimuthal inclinometer. (MLRA 10:8)
Izv.AN SSSR.Ser.geofiz. no.8:1060-1064 Ag '57.

1.Akademiya nauk SSSR, Institut fiziki Zemli.
(Inclinometer)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.

AUTHORS: Bonchkovskiy, V.F. and Karmaleyeva, R.M. 49-9-10/13

TITLE: Investigation of the influence of the thread torsion on the indications of the penduli of inclination meters. (Issledovaniye vliyaniya krucheniya nitey na pokazaniya mayatnikov naklonomerov).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1957, No.9, pp.1181-1184 (USSR)

ABSTRACT: The investigation given in this paper was prompted by the fact that frequently there are divergences in the recordings of two instruments which are placed side by side. Since views were expressed that the torsion of the threads may seriously affect the readings, in spite of theoretical conclusions to the contrary, the authors of this paper verified the results of theoretical calculations by means of an experiment using a balanced platform for which the inclination angles could be measured with an arc accuracy of up to 0".05. The test platform and the obtained test results are described. It was found that preliminary twisting of the thread by $\pm 360^0$ does not influence the readings of H-IV inclination meters (pendulum weight 100 g) for threads of 0.1 mm dia. since the error does not exceed 0".05; for threads of 0.2 mm dia. a preliminary twisting by

Card 1/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Investigation of the influence of the thread torsion on the indications of the penduli of inclination meters.

$\pm 360^{0}$ also does not show any appreciable influence on the readings, the error being 0".20, i.e. the accuracy is the same as it would be without preliminary twisting and the value is about four times the accuracy of the indications of the inclination meters and, therefore, use of 0.2 mm dia. threads is not permissible for the H-IV inclination meter. The obtained results can be linked with the ratio of the limit stretching of the thread to the magnitude of the load; the graph, Fig.5, shows the dependence between the limit stretching of steel wire on the wire radius. There are 5 figures and 3 tables.

SUBMITTED: February 7, 1957.

ASSOCIATION: Ac.Sc. U.S.S.R., Institute of Physics of the Earth. (Akademiya Nauk SSSR Institut Fiziki Zemli).

AVAILABLE: Library of Congress
Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

SOV/49-58-9-6/14

AUTHOR: Bonchkovskiy, V.F.

TITLE: Deformations of the Earth's Surface which Precede and Accompany Catastrophic Earth Tremors (Deformatsii zemnoy poverkhnosti, predvaryayushchiye i soprovozhdayushchiye katastroficheskiye zemletryaseniya)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 9, pp 1111-1113 (USSR)

ABSTRACT: Deformations close to the epicentre have often been noticed but they have not yet been confirmed at distances of several thousand km. However, the use of high sensitivity apparatus has indicated that such disturbances do occur in very large earth tremors. Since they precede, in some cases, the tremor, it seems possible that large-scale tremors are produced by a world-wide deformation. A catastrophic tremor at Taiwan on October 21, 1951 was recorded by apparatus in England (at the bottom of a shaft 116 m deep). The apparatus was displaced as shown in Figure 1. Similar results were noted at Japanese stations. Obviously, a large part of the Earth's surface was deformed. Many traces of such deformations have been obtained in Japan (Figures 2 and 3). Japanese scientists believe that the deformations start several months before strong and

Card1/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Deformations of the Earth's Surface which Precede and Accompany Catastrophic Earth Tremors

close tremors.
Two mutually-perpendicular, quartz deformographs were installed at the Yalta geodesic station (at a level 4 m below ground level) in 1956. One recorded the linear deformation in the N-S direction and the other in the E-W direction. The temperature was kept constant to 0.05°. At the given depth, the apparatus followed the deformations due to the periodic thermal fluctuations quite clearly (Figure 4 gives the diurnal variation in deformation). Besides the diurnal variation, a yearly variation of the null point was also observed - the overall change in deformation could be represented by an equation of the form:

$$D = a + bt + D_o \sin(\omega t + \varphi)$$

(where $a + bt$ represents the yearly variation).
On March 9, 1957, a catastrophic Earth tremor occurred in the Aleutians ($\varphi = 51.5$ N, $\lambda = 175.5$ W). The soil at Moscow was displaced through a height of 1 mm. Tracings at Yalta indicated prior deformation. As can be seen from

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Figure 5, the deformation began to alter on March 8, 18 hours before earthquake waves were recorded. After the tremor, there was a change in the sign of the deformation. Figure 6 shows that a change in sign of both components of the annual variation also appeared 18 hours before the onset of the earthquake.

Further research must obviously be made into this problem and, in particular, into the physical bases causing the initial world-wide deformation. There are 5 figures.

ASSOCIATION: Akademiya nauk SSSR, Institut fiziki Zemli (Ac.Sc.USSR, Institute of Physics of the Earth)

SUBMITTED: July 30, 1957

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

PHASE I BOOK EXPLOITATION SOV/3470

Bonchkovskiy, V.F.

Nekotoryye obobshcheniya rezul'tatov nablyudeniy naklonov zemnoy poverkhnosti. (Summaries of Observational Results of Tilts on the Earth's Surface) Moscow, Izd-vo AN SSSR, 1959. 60 p. (Series: Akademiya nauk SSSR. Institut fiziki zemli. Trudy, No. 7 /174/) 1,800 copies printed.

Ed.: F.I. Monakhov, Candidate of Physical and Mathematical Sciences; Ed. of Publishing House: A.L. Chernyak; Tech. Ed.: I.F. Koval'skaya.

PURPOSE: The book is intended for scientists and geophysicists.

COVERAGE: The book deals with deformations of the earth's surface resulting from tilts connected with internal and external phenomena. Among the major causes are: (1) depressions in the earth's surface resulting from local and temporary loads, i.e. precipitation, atmospheric pressure, etc.; 2) the expansion and compression of the upper layers of the earth's surface caused by diurnal and yearly variations in temperature; 3) local depressions, lifts and shifts caused

Card 1/4

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

by chemical, mechanical and heating processes within the earth and by the displacement of plastic sub-core substances; 4) continuous depressions and rises in a large territory caused by an isostatic leveling; 5) tilts caused by mountain-forming processes; 6) tilts caused by the deformation of the earth's surface, preceding and accompanying severe earthquakes and volcanic eruptions. Other phenomena are connected with the change in the direction of the plumb line whose periodical deflections caused by the lunar-solar pull also produce tilts on the earth's surface. There may be tilts the causes of which are unknown. It is also possible that tilts caused by the above phenomena occur simultaneously at certain times. The instruments will then record a very complex tilt situation, parts of which will be difficult to distinguish. A review of some results of the measurements of the earth's tilts was given since a tilt may introduce a considerable error in the results of various measurements on the earth's surface (geodetic and astronomical) should its effect not be considered. On the other hand, tilts on the earth's surface assume greater importance as an independent phenomenon of nature from the point of view of establishing the strength and nature of internal and external forces. Of considerable interest are the continuous measurements of tilts for studying the secular movements of the earth's surface, obtaining numerical data on them and establishing their nature, and also measurement of tilts caused by build up of stresses with their deformations in and on the earth, which preceed earthquakes. There are 24 references: 13 Soviet, 6 English, 3 Japanese and 2 German.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Summaries of Observational (Cont.)

TABLE OF CONTENTS:

Card 3/4

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

AVAILABLE: Library of Congress

Card 4/4

JM/lsb
5-16-60

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

GOLITSYN, Boris Borisovich, akademik; BONCHKOVSKIY, V.F., prof., otv.red.II toma; PREDVODITELEV, A.S., otv.red.I toma; GORSHKOV, G.P., prof., red.; KIRNOS, D.P., prof., red.; SAVARENSKIY, Ye.F., prof., red.; VVEDENSKAYA, A.V., kand.nauk, red.; VESHNYAKOV, N.V., kand.nauk, red.; LEVITSKAYA, A.Y., kand.nauk, red.; LINDEN, N.A., kand.nauk, red.; FILIPPOV, L.P., kand.nauk, red.; KHARIN, D.A., kand.nauk, red.; ALEKSEYEV, D.M., red.izd-va; KASHINA, P.S., tekhn.red.

[Selected works] Izbrannye trudy. Moskva, Izd-vo Akad.nauk SSSR. Vol.2. [Seismology] Seismologiia. 1960. 489 p.
(MIRA 13:12)

1. Chlen-korrespondent AN SSSR (for Predvoditelev).
(Seismology)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.; SKUR'YAT, A.N.

The UV level variometer. Izv. AN SSSR. Ser. geofiz. no.1:79-90 Ja '61. (MIRA 14:1)

1. Akademiya nauk SSSR, Institut fiziki Zemli.
(Inclinometer)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

S/049/62/000/002/002/005
D218/D301

AUTHOR: Bonchkovskiy, V.F.

TITLE: Deformation of the earth's surface accompanying certain distant catastrophic earthquakes

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya geofizicheskaya, no. 2, 1962, 190-193

TEXT: It is pointed out that certain distant catastrophic earthquakes give rise to a residual deformation in the upper layers of the earth. These are due to major disruptions in the epicentral region which are transmitted to large distances in the radial direction. The present paper is concerned with the elucidation of the physical nature of the residual deformations. The problem is discussed in terms of the Mongolian catastrophic earthquake with M = 7, which occurred on December 4, 1957, at 3 hr 37 min 50 sec GMT. In order to investigate the presence of residual deformations the author has analyzed records obtained at the Garm station (Tadzhik SSR)

Card 1/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

Deformation of the earth's surface...

and the Simferopol' station at 2430 km and 4950 km from the epicenter respectively. Detailed examination of the records showed that large disturbances of the continuity of the medium of the upper layers of the earth were the main reason for the residual deformations on the earth's surface at large distances from the epicenter. Stresses in the earthquake focus which gave rise to eruptions in the epicentral region are not in all probability the reason for the deformations at large distances. It follows that for those catastrophic earthquakes which are not accompanied by major eruptions at the epicenter, one cannot expect residual deformations to occur at large epicentral distances. Since only one case is considered in the present paper it is recommended that further studies of other catastrophic earthquakes be carried out. There are 4 figures and 5 references: 2 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: K. Tomashek, Nature, 176, no. 4470 (1955); Nishimura. Dis. Prev. Res. Inst. Kyoto Univ., no. 6 (1953); F. Wipple, MNRAS, Geophys., Suppl., 3, no. 9 (1936).

Card 2/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

S/049/62/000/002/002/005
D218/D301

Deformation of the earth's surface...

ASSOCIATION: Akademiya nauk SSSR, Institut fiziki zemli (Academy of Sciences USSR, Institute of Physics of the Earth)

SUBMITTED: November 2, 1960

Card 3/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.

Dips of the upper layers of the earth. Priroda 51 no.7:48-52 Jl '62. (MIRA 15:9)

1. Institut fiziki Zemli im. O.Yu. Shmidta AN SSSR, Moskva.
(Earth movements)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.

Special case of a connection between the rate of tilt and linear deformations and the distribution of atmospheric pressure. Izv. AN SSSR. Ser. geofiz. no.9:1361-1368 S '63. (MIRA 16:10)

1. Institut fiziki Zemli AN SSSR.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

BONCHKOVSKIY, V.F.; OVODKOVA, G.D.

Periodic and nonperiodic movements of the Ai-Petri Mountain in the Crimea. Vest. Mosk. un. Ser. 3: Fiz., astron. 18 no.4: 9-13 Jl-Ag '63. (MIRA 16:8)

1. Kafedra fiziki zemnoy kory Moskovskogo universiteta.
(Ai-Petri Mountain)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6

L 22396-66 EWT(1) GW
ACC NR: AT6011140 SOURCE CODE: UR/3197/65/000/002/0055/0061

28
B+1

AUTHOR: Bonchkovskiy, V. F.

ORG: Institute of the Physics of the Earth (Institut fiziki Zemli)

TITLE: Comparison of the secular variations of tilts of the earth's surface with geologic, geodetic, and geophysical data

SOURCE: AN EstSSR, Institut fiziki i astronomii. Sovremennyye dvizheniya zemnoy kory. Recent crustal movements, no. 2, 1965, 55-61

TOPIC TAGS: geophysical conference, geodetic conference, crustal secular tilt, geophysics, geodesy, geology

ABSTRACT: The rates and directions of the secular tilts of the earth's surface are determined by geophysical methods (successive interpolation and construction of tilt vector diagrams), a geodetic method (using V. A. Matskova's "Revised map of the rates of contemporary vertical movements from geodetic data") and by a geological method (example from data on the Moscow syneclise). Comparison of the results calculated by these methods showed significant variations between them. By adopting a limiting value for annual vertical displacement (1 cm/yr), it was

Card 1/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206210013-6"